

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>74 . 82023/001</b>	<b>FOR FURTHER ACTION</b> <small>see Form PCT/ISA/220 as well as, where applicable, item 5 below.</small>	
International application No. <b>PCT/GB2004/005415</b>	International filing date (day/month/year) <b>23/12/2004</b>	(Earliest) Priority Date (day/month/year) <b>31/12/2003</b>
<b>Applicant</b>  <b>SMARTMEMBRANE CORP</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b.  With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2.  Certain claims were found unsearchable (See Box II).

3.  Unity of invention is lacking (see Box III).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

**METHOD AND APPARATUS FOR SEPARATING AIR**

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 5

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

b.  none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB2004/005415

A. CLASSIFICATION OF SUBJECT MATTER					
IPC 7	B01D53/22	C01B21/04	C01B13/02	B01D63/02	B01D63/10

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01D C01B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 202 023 A (JOHNNY L. TRIMMER ET AL.) 13 April 1993 (1993-04-13)	1-48,51
Y	column 2, line 45 – line 52; figure 6 column 7, line 29 – line 47 column 9, line 16 – column 16, line 19 column 20, line 18 – line 27; claims	1-51
P, Y	EP 1 442 783 A (SMARTMEMBRANE CORP) 4 August 2004 (2004-08-04) cited in the application the whole document	1-51
X	US 4 105 548 A (RICHARD ANSON BAKER ET AL.) 8 August 1978 (1978-08-08) figures	28,31, 42,51

Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

10 March 2005

Date of mailing of the international search report

17/03/2005

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/005415

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 5202023	A	13-04-1993	DE EP JP WO	69231648 D1 0618839 A1 7503889 T 9312866 A1
				22-02-2001 12-10-1994 27-04-1995 08-07-1993
EP 1442783	A	04-08-2004	GB CA EP US	2397303 A 2437539 A1 1442783 A2 2004149127 A1
				21-07-2004 17-07-2004 04-08-2004 05-08-2004
US 4105548	A	08-08-1978	BE CA DE FR GB IL IT JP JP NL US	864198 A1 1096317 A1 2807613 A1 2381000 A1 1587393 A 54089 A 1092784 B 1620651 C 2030732 B 53103981 A 7801984 A ,B, 4446024 A
				22-08-1978 24-02-1981 24-08-1978 15-09-1978 01-04-1981 28-02-1982 12-07-1985 09-10-1991 09-07-1990 09-09-1978 24-08-1978 01-05-1984